

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims:

Listing of Claims:

1. (Currently amended) An image forming apparatus comprising:

an image forming section which includes a latent image carrier which is constructed to carry an electrostatic latent image and a charger unit which charges the latent image carrier to a predetermined surface potential, wherein an electrostatic latent image, which is formed on a surface of the latent image carrier, is developed with toner to form a toner image; and

a controller unit which performs an adjusting operation to adjust operating conditions of the image forming section based on a density detection result of a toner image which is formed by the image forming section as a patch image, wherein

the controller unit determines execution timing of the adjusting operation based on timing information related to variation over time in charge property of the latent image carrier,

the charger unit includes a discharging electrode which is closely disposed to the surface of the latent image carrier, and

the controller unit controls charge property of the latent image carrier by adjusting the amount of current which is supplied to the discharging electrode based on the timing information, as well as executing the adjusting operation when the amount of current is changed.

2. (Original) The image forming apparatus of claim 1, wherein the controller unit performs the adjusting operation when the timing information reaches a predetermined threshold value.

3. (Original) The image forming apparatus of claim 1, wherein the controller unit uses information on remaining service life of the latent image carrier as the timing information.

4. (Original) The image forming apparatus of claim 3, wherein the controller unit uses an integrated value of the operation amount of the latent image carrier as the timing information.

5. (Original) The image forming apparatus of claim 1, wherein the controller unit uses information on remaining service life of the charger unit as the timing information.

6. (Currently amended) The image forming apparatus of claim 1, wherein the controller unit executes the adjusting operation at necessary timing according to a status of individual parts of the apparatus, and

process of the adjusting operation triggered by the timing information is different from that of than if the adjusting operation which is were performed at other timings a different timing.

7. (Currently amended) The image forming apparatus of claim 6, wherein the controller unit performs a more simplified operation process for the adjusting operation which is triggered by the timing information than if the operation process that is were performed at other timings a different timing.

8. (Canceled)

9. (Currently amended) The image forming apparatus of claim 8 1, wherein the controller unit is adapted to execute the adjusting operation at necessary timings according to a status of individual parts of the apparatus, determines whether the amount of current should be changed or not based on the timing information in the event when the adjusting operation is executed, and executes the adjusting operation after changing the amount of charging current based on the result of judgement if necessary.

10. (Currently amended) The An image forming apparatus of claim 1 comprising:

an image forming section which includes a latent image carrier which is constructed to carry an electrostatic latent image and a charger unit which charges the latent image carrier to a predetermined surface potential, wherein an

electrostatic latent image, which is formed on a surface of the latent image carrier, is developed with toner to form a toner image; and

a controller unit which performs an adjusting operation to adjust operating conditions of the image forming section based on a density detection result of a toner image which is formed by the image forming section as a patch image, wherein

the controller unit determines execution timing of the adjusting operation based on timing information related to variation over time in charge property of the latent image carrier.

the charger unit includes: an electrode member supplied with a predetermined charging bias; and a high-resistance layer that is disposed to cover a surface of the electrode member and is made out of materials with higher resistivity than that of the electrode member, and charges the latent image carrier with the high-resistance layer abutting the latent image carrier, and wherein

the controller unit controls charge property of the latent image carrier by adjusting the charging bias based on the timing information, as well as executing the adjusting operation when the charging bias is changed.

11. (Original) The image forming apparatus of claim 10, wherein the charging bias is DC voltage.

12. (Original) The image forming apparatus of claim 10, wherein the controller unit is adapted to execute the adjusting operation at necessary timings according to a status of individual parts of the apparatus, determines whether the charging bias should be changed or not based on the timing information in the event when the adjusting operation is executed, and executes the adjusting operation after changing the charging bias based on the result of judgement if necessary.

13. (Canceled)